

Health Pulse Companion 1998

Charts and Technical Notes for the
Report on the Health Status of Music City

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Charts and Technical Notes for the Report on the Health Status of Music City

This supplement to “Health Pulse: A Report on the Health Status of Music City” describes the design of the report model, provides definitions of the twenty-seven indicators presented in the report, provides the data sources and dates for the values included for Nashville and the thirteen other cities, and includes charts on each indicator depicting the values for each city.

Report Model

The “Health Pulse” report is designed to provide Nashville’s community leaders and the general public a concise, easily understood comparison of health status in Music City with thirteen comparable cities in the United States. The report presents information on twenty-seven “indicators” or measures of health status. These indicators are organized into four groups or “domains”:

- social, economic, and environmental factors,
- health risk factors,
- health care access/use, and
- health outcomes.

As the name suggests, the social, economic, and environmental factors domain concerns conditions within the community that have an impact on health status. Thus, included in this group are indicators on unemployment, education level, poverty, crime, suicide and air quality. The health risk factors domain focuses on personal conditions or behaviors that affect health status. Included in this group are measures of high blood pressure, high blood cholesterol, seat belt use, smoking, and binge drinking.

The health care access/use domain includes measures related to the availability and use of health care resources. Included here are measures of health insurance coverage, screening for cervical cancer, breast cancer, colon/rectal cancer, immunization rate for two-year-olds, and prenatal care. The health outcomes domain includes measures directly related to the health status of Davidson County residents. Measures in this group are infant mortality rate; mortality rates for lung cancer, breast cancer, heart disease, and stroke; low birthweight infants; physical health; mental health; and new AIDS cases.

Obviously, this short list of twenty-seven indicators can not provide as complete a picture of health status as would be preferred. The list will be expanded in the future as comparable data across all of the fourteen cities become available. In selecting these twenty-seven indicators, two criteria were followed: data had to be available from at least four of the thirteen comparable cities and the data had to be recent, i.e., within three years of the year data were available for Nashville. These criteria kept this edition of Health Pulse from including other important indicators such as teen and adolescent pregnancy rates, cancer incidence rates, leading causes of morbidity, etc. It is hoped that the publication and distribution of the Health Pulse will generate similar efforts in these other cities and, within time, data on more indicators will become available.

Scoring the Indicators

Among the twenty-seven indicators there are four types of values –

- percentages, e.g., percent unemployed, percent uninsured;
- crude rates, e.g., the number of new AIDS cases per 100,000 population;
- age-adjusted rates, e.g., the number of deaths from breast cancer per 100,000 population age-adjusted; and
- infant mortality rate which is the number of infant deaths per 1,000 live births.

Because many in the intended audience for this report are not readily familiar with some of these types of values, the scores on the twenty-seven indicators are presented in two ways. First, the actual value is presented, and second, the value is indexed to 100 where 100 equals the average score of all the cities for which there is a value.

For example, the average score of all fourteen cities on unemployment is 3.61% and the unemployment rate in Nashville is 3.3%. If the unemployment average (3.61) were expressed as 100, then Nashville's unemployment rate of 3.3 would become 91. When the reader sees that Nashville's indexed score on unemployment (91) is lower than 100, then he or she knows immediately that Nashville's unemployment rate is better than the average of all fourteen cities.

By indexing the values on all twenty-seven indicators in this way, the reader can interpret the scores without being familiar with the specific type of value being presented. He or she may not know for example how the infant mortality rate is calculated and may not know that a low infant mortality rate is preferred. However, when the reader sees that the score for a city is below or above 100, they immediately know how the city compares to the average for all the cities on that value. They also have some indication of how large the gap is between that city's score and the average score.

Finally, for most of these indicators, a lower value is naturally preferred. For example, the lower the unemployment, the better; the lower the number of uninsured, the better; the lower the mortality rate from breast cancer, the better. However, for some of the indicators, the preferred score would be a high value; for example, the number of persons who have been screened for breast cancer; or the number of expectant mothers who received adequate prenatal care.

To avoid confusion about whether a higher or lower value would be preferred on a given indicator, all of the twenty-seven indicators have been defined so that the lower value is always preferred. Thus, for example, the value for breast cancer screening is expressed as the number of persons who did not receive the screening test and the value for adequate prenatal care is expressed as the number of expectant mothers who did not receive adequate prenatal care.

By making the preferred score a lower value for all indicators, the reader knows that in this presentation of comparison scores, the objective would be to have a low value and to always be lower than 100. This approach is analogous to golf where the objective is to have as few strokes as possible and to be under the established par for the course.

Definitions of the Indicators

Social/Economic/Environmental Factors

1. Unemployment – Percentage of persons actively seeking work who were unemployed.
2. Formal education – Percentage of persons age 18 and over who had not graduated from high school.
3. Income (% poor) – Percentage of population living in households where the household income is less than the federal poverty level.
4. Crimes against persons – Number per 100,000 population who were victims of the following crimes: aggravated assault, criminal homicide, rape, and robbery.
5. Crimes against property – Number per 100,000 population who were victims of the following crimes: burglary, vehicle theft, and larceny.
6. Suicide – The number of deaths from suicide per 100,000 population age-adjusted.
7. Air quality – Percentage of work days during the year when the air quality was not in the “good” range or better.

Health Risk Factors

1. High blood pressure – Percentage of the population who have been told by a health care professional that they have high blood pressure.
2. High blood cholesterol – Percentage of the population who have been told by a health care professional that they have high blood cholesterol.
3. Smoking – Percentage of the population who now smoke.
4. Seat belt use – Percentage of the population who does not always use their vehicle seat belt.
5. Binge drinking – Percentage of the population who were inebriated at least once during the last thirty days.

Health Care Access/Use

1. Health insurance – Percentage of the population who had no health insurance.
2. Cervical cancer screening – Percentage of women who did not have a Pap smear test within the last year.
3. Breast cancer screening – Percentage of women who have never had a mammogram.
4. Colon cancer screening – Percentage of population 40 years or older who have not had a sigmoidoscopy or proctoscopy.

5. Two-year-old immunization rate – Percentage of two-year-old population who have not completed the recommended immunization schedule.
6. Adequate prenatal care – Percentage of women who gave birth during the year who did not receive six or more prenatal care visits and did not have their first visit during the first three months of their pregnancy.

Health Indicators

1. Infant mortality rate – the number of deaths of children under age one per 1,000 live births during that year.
2. Lung cancer mortality – the number of lung cancer deaths per 100,000 population age-adjusted.
3. Breast cancer mortality – the number of breast cancer deaths per 100,000 females age-adjusted.
4. Heart disease mortality – the number of heart disease deaths per 100,000 population age-adjusted.
5. Stroke mortality – the number of cardiovascular disease deaths per 100,000 population age-adjusted.
6. Low birthweight rate – the percentage of infants born weighing less than 5.5 pounds.
7. Physical health – the percentage of the population that rate their health as “fair” or “poor”.
8. Mental health – the percentage of the population that indicate they have been bothered by emotional problems such as feeling unhappy, anxious, depressed or irritable during the past four weeks.
9. New AIDS cases – the number of new AIDS cases per 100,000 population during the reported year.

About the Behavior Risk Factor Surveillance System (BRFSS)

The values on eleven of the twenty-seven indicators included in the report have been obtained from an annual survey conducted by state health departments under the direction of the Centers for Disease Control and Prevention (CDC). The survey was developed to monitor state-level prevalence of the major behavioral risks among adults associated with premature morbidity and mortality. Each state uses the same questionnaire and conducts the survey under the same procedures as directed by the CDC.

The responses of persons in the thirteen counties in which the comparison cities of this report are located were selected out for analysis. Because the number of responses differed among the thirteen counties, the margins of error for values among the counties also differ. Table 1 provides the number of interviews for each county and the calculated margin of error on their survey results.

Table 1: BRFSS Responses and Margin of Error

City (County)	Number of Responses	Margin of Error
Atlanta (Fulton)	None available	
Charlotte (Mecklenburg)	312	+/- 6%
Cincinnati (Hamilton)	129	+/- 9%
Columbus (Franklin)	122	+/- 9%
Dallas (Dallas)	151	+/- 8%
Durham (Durham)	67	+/- 12%
Greenville (Greenville)	158	+/- 8%
Indianapolis (Marion)	363	+/- 5%
Louisville (Jefferson)	493	+/- 5%
Orlando (Orange)	184	+/- 7%
Raleigh (Wake)	220	+/- 7%
Spartanburg (Spartanburg)	136	+/- 9%
Tampa (Hillsborough)	171	+/- 8%

Nashville's values on these eleven indicators came from a survey conducted in the summer of 1996 by Solution Point, Inc. under a contract with Partners for a Healthy Nashville. This survey used the same CDC BRFSS questions that were used by the state health departments described above. There were 2800 responses to the Nashville survey and the margin of error was +/- 2%.

Data Outliers

A statistical test was performed on each of the values in the report to identify those that were three standard deviations or more from the mean. The assumption is that such values should be interpreted with some caution since some extraneous factor may be causing the value in this city to be so far different from those in the other cities.

There were two values that were three standard deviations from the mean. These were Greenville's score on air quality and Durham's score on smoking. These values and their indexed value are identified with a double asterisk on the tables and charts that follow.

Thirteen Comparison Cities

The Nashville Area Chamber of Commerce has identified thirteen comparison cities for the purpose of tracking Nashville's economic growth and attractiveness to potential businesses. These cities were chosen because they were similar to Nashville on a number of factors including population, demographics, industry and business types, and transportation facilities. Because of these similarities, these same cities were chosen for use in developing this report on health status.

Date of Indicator Values

The report has used the most recently available reliable data for each of the indicators. For most indicators, the most recently available information is for the calendar year 1996. However, for some indicators, the most recently available information may be as old as 1990. For example, the most reliable information on the percentage of persons who have not completed high school is the 1990 census. Further, the date of the most recently available data on some indicators may vary among the cities and in some cases the only value available for some indicators is an average for several years. The report excluded information on an indicator for a city if the date of the most recently available data was more than 3 years older than the most recent date of the Nashville data. Table 2 provides the date of each of the values provided in the report.

Table 2: Date of Indicator Values

INDICATOR	Atlanta	Charlotte	Cincinnati	Columbus	Dallas	Durham	Greenville
Unemployment	1996	1996	1996	1996	1996	1996	1996
Formal Education	1990	1990	1990	1990	1990	1990	1990
Income (% poor)	1993	1993	1993	1993	1993	1993	1993
Crime against Persons	1995	1995	1995	1995	1995	1995	1995
Crime against Property	1995	1995	1995	1995	1995	1995	1995
Suicide	1994	1994	1994	1994	1994	91-95 ave.	1996
Air Quality	1996	1996	1996	1996	1996	1996	1996
High Blood Pressure	*	1995	1995	1995	1995	1995	1995
High Cholesterol	*	1995	1995	1995	1995	1995	1995
Smoking	*	1995	1995	1995	1995	1995	1995
Seat Belt Use	*	1995	1995	1995	1995	1995	1995
Binge Drinking	*	1995	1995	1995	1995	1995	1995
Health Insurance	*	1995	1995	1995	1995	1995	1995
Cervical Cancer Screening	*	1995	1995	1995	1995	1995	1995
Breast Cancer Screening	*	1995	1995	1995	1995	1995	1995
Colon Cancer Screening	*	1995	1995	1995	1995	1995	1995
Two-year-old Immunization	*	*	*	1996	1996	*	*
Adequate Prenatal Care	*	*	*	*	*	*	1996
Infant Mortality Rate	1994	1994	1994	1994	1994	*	*
Lung Cancer Mortality	1994	1994	1994	1994	1994	91-95 ave.	1996
Breast Cancer Mortality	1994	1994	1994	1994	1994	91-95 ave.	1996
Heart Disease Mortality	1994	1994	1994	1994	1994	91-95 ave.	1996
Stroke Mortality	*	1993	*	*	*	91-95 ave.	1996
Low Birth Weight Rate	1994	1994	1994	1994	1994	*	1996
Physical Health	*	1995	1995	1995	1995	1995	1995
Mental Health	*	1995	1995	1995	1995	1995	1995
New AIDS Cases	*	1994	*	*	*	*	*

*Data are not available.

INDICATOR	Indianapolis	Louisville	Nashville	Orlando	Raleigh	Spartanburg	Tampa
Unemployment	1996	1996	1996	1996	1996	1996	1996
Formal Education	1990	1990	1990	1990	1990	1990	1990
Income (% poor)	1993	1993	1993	1993	1995	1993	1993
Crime against Persons	1995	1995	1996	1995	1995	1995	1995
Crime against Property	1995	1995	1996	1995	1995	1995	1995
Suicide	1994	1996	1996	1996	1993	1996	1996
Air Quality	1996	1996	1996	1996	1996	1996	1996
High Blood Pressure	1995	1995	1996	1995	1995	1995	1995
High Cholesterol	1995	1995	1996	1995	1995	1995	1995
Smoking	1995	1995	1995	1995	1995	1995	1995
Seat Belt Use	1995	1995	1996	1995	1995	1995	1995
Binge Drinking	1995	1995	1996	1995	1995	1995	1995
Health Insurance	1995	1995	1996	1995	1995	1995	1995
Cervical Cancer Screening	1995	1995	1995	1995	1995	1995	1995
Breast Cancer Screening	1995	1995	1996	1995	1995	1995	1995
Colon Cancer Screening	1995	1995	1996	1995	1995	1995	1995
Two-year-Old Immunization	1996	*	1996	*	1996	*	*

Table 2 Continued: Date of Indicator Values

INDICATOR	Indianapolis	Louisville	Nashville	Orlando	Raleigh	Spartanburg	Tampa
Adequate Prenatal Care	*	*	1996	1996	1995	1995	1996
Infant Mortality Rate	1994	1996	1996	1996	1993	*	1996
Lung Cancer Mortality	1994	1996	1996	1996	*	1996	1996
Breast Cancer Mortality	1994	1996	1996	1996	1993	1996	1996
Heart Disease Mortality	1994	1996	1996	1996	1993	1996	1996
Stroke Mortality	*	1996	1996	1996	1993	1996	1996
Low Birthweight Rate	1994	1996	1996	1996	1995	1994	1996
Physical Healthg	1995	1995	1996	1995	1995	1995	1995
Mental Health	1995	1995	1996	1995	1995	1995	1995
New AIDS Cases	*	1996	1996	1996	1995	1996	1996

*Data are not available.

Health Pulse Companion 1998 Highlights

On three of the four domains, Nashville's scores were worse than the average and were 11th or higher in the list of fourteen cities. The score on the Health Care Access/Use Domain was second best of all cities. Of the twenty-seven indicators, Nashville's scores were better than the average on only nine. The following table shows Nashville's indexed score on the four domains and on each of the twenty-seven indicators, the actual value for each indicator, and the average value of all cities for which there were data.

Table 3: Nashville's Scores and the Average for the Fourteen Cities

Indicator	Nashville Index	Nashville Value	Average Value
Social, Economic, Environmental Factors Domain	117		
Unemployment – % unemployed	91	3.3%	3.6%
Formal Education – % adults not completed high school	103	24%	23%
Income – % of population below federal poverty level	119	18%	15%
Crime Against Persons – crimes per 100,000 population	156	1,874	1,205
Crime Against Property – crimes per 100,000 population	136	9,242	6,802
Suicide – deaths per 100,000 population age-adjusted	99	12.3	12.4
Air Quality – % work days not in good range	113	32%	29%
Health Risk Factors Domain	123		
High Blood Pressure – % told they have HBP	131	31%	24%
High Cholesterol – % told they have high cholesterol	119	31%	26%
Smoking – % of population who smoke	108	27%	25%
Seat Belt Use – % who do not always use seat belt	132	31%	23%
Binge Drinking – % inebriated at least once in last 30 days	125	11%	9%
Health Care Access/Use Domain	90		
Health Insurance – % of population without insurance	80	9%	11%
Cervical Cancer Screening – % of women with no Pap smear in last 12 months	108	33%	30%
Breast Cancer Screening – % of women who have not had a mammogram	96	38%	39%
Colon Cancer Screening – % of persons over 40 who have not had a colorectal cancer screening	97	68%	70%
Two-year-old Immunization Rate – % who have not completed the recommend immunization schedule	90	21%	25%
Adequate Prenatal Care – % with fewer than 6 prenatal visits and first visit after first trimester	77	13%	16%

Table 3 Continued: Nashville's Scores and Fourteen City Average

Indicator	Nashville Index	Nashville Value	Average Value
Health Outcomes Domain	103		
Infant Mortality Rate – infant deaths per 1,000 live births	77	7.2	9.4
Lung Cancer Mortality – deaths per 100,000 age-adjusted	101	49.2	48.9
Breast Cancer Mortality – deaths per 100,000 age-adjusted	104	24.9	24
Heart Disease Mortality – deaths per 100,000 age-adjusted	101	158.1	156.7
Stroke Mortality – deaths per 100,000 age-adjusted	109	33.1	30.5
Low Birth Weight Rate – % infants less than 5.5 pounds	104	9%	8%
Physical Health – % not rating health as good or better	91	14%	15%
Mental Health – % bothered by emotional problems	104	30%	28%
New AIDS Cases – number cases per 100,000 population	141	41.1	29.2

The values for the twenty-seven indicators and the indexed score for each indicator for all fourteen cities¹ are presented in Tables 4 and 5 that follow.

Table 4: Indicator Values

Indicator	Atlanta	Charlotte	Cincinnati	Columbus	Dallas	Durham	Greenville
Unemployment	3.8	3.7	4.2	3.1	4	2.3	4.3
Formal Education	21.9	18.6	23.9	18.8	24.3	20.4	27.8
Income (% poor)	22.8	12.9	14.4	13.1	18.6	13	10.9
Crime against Persons	2160.7	1617.9	785.7	651.1	990.1	1057.4	973.3
Crime against Property	10081.6	7801.3	6497.6	4623.1	6537.5	8366.6	4750.4
Suicide	14.3	11.3	9.9	8.6	13.3	12.3	17.2
Air Quality	27.9	36.6	30.3	24.9	33.3	30.1	2.7**
High Blood Pressure	*	15.8	22.5	26.2	26	17.9	21.5
High Cholesterol	*	20.8	23.3	21.9	29	27.5	26.3
Smoking	*	23.7	27.9	30.3	22.2	16.4**	24.1
Seat Belt Use	*	9.6	34.9	31.1	19.9	9	21.5
Binge Drinking	*	4.8	4.7	9.9	15.4	3	4.4
Health Insurance	*	10.9	13.2	14.8	12.6	10.5	10.8
Cervical Cancer Screening	*	33.2	35.4	29	31.8	20	26.4
Breast Cancer Screening	*	42.1	34.1	37.7	47.7	40	34.1
Colon Cancer Screening	*	68	82.4	77.1	70.5	69.2	64.5
Two-year-old Immunization Rate	*	*	*	19	25	*	*
Adequate Prenatal Care	*	*	*	*	*	*	5.3
Infant Mortality Rate	12.2	9.5	12.3	9.9	7.3	*	*
Lung Cancer Mortality	51.6	50	46.1	51.6	42.5	50.3	39.7
Breast Cancer Mortality	28.1	28.2	26.9	22.7	22.5	22.5	21.9
Heart Disease Mortality	194.2	158.3	178.2	175.4	159.7	135.2	157.4
Stroke Mortality	*	33	*	*	*	32.9	30.1
Low Birthweight Rate	9.9	8.5	9.4	7.7	7.5	*	7.7
Physical Health	*	16	13.9	15.6	12.6	14.9	11.4
Mental Health	*	14.4	22.5	30.3	43	14.9	24.7
New AIDS Cases	*	20.1	*	*	*	*	*

*Data are not available.

**Three standard deviations from the mean.

¹The report uses the city name throughout when referring to the comparison areas. However, most of the data are actually for the county in which the city is located. The exception is the mortality data for Atlanta, Charlotte, Cincinnati, Columbus, Dallas, and Indianapolis.

Table 4 Continued: Indicator Values

Indicator	Indianapolis	Louisville	Nashville	Orlando	Raleigh	Spartanburg	Tampa
Unemployment	3.2	4.4	3.3	3.8	2.3	4.3	3.9
Formal Education	23.5	25.5	23.8	21	14.8	36.2	24.5
Income (% poor)	15.1	16.7	17.9	14.4	8.4	15	16.9
Crime against Persons	986.2	916.5	1873.5	1335.4	520.8	1505.7	1492.2
Crime against Property	6460.1	4618.6	9242.2	7555.4	4734.3	6238.4	7722.8
Suicide	14.8	11.2	12.3	13	9.7	15.3	11
Air Quality	28.1	25.6	32.2	19.7	38	34.2	36.1
High Blood Pressure	28.6	22.3	31	23.4	22.3	27.2	23.4
High Cholesterol	29.3	30.5	31	27	20.4	27.7	25.2
Smoking	29.5	25.8	27.1	22.3	20	28.7	26.9
Seat Belt Use	41	27.4	31	22.8	8.2	25	23.4
Binge Drinking	13.5	8.2	11	12	5.5	8.9	12.8
Health Insurance	11.6	9.3	9.2	13.6	10.5	8.8	12.9
Cervical Cancer Screening	34.7	42.1	32.5	26.2	31.1	26.6	23.8
Breast Cancer Screening	39.2	39.9	37.5	34.6	42	35.4	41.6
Colon Cancer Screening	65.2	72.8	68.3	60.6	66.3	79.3	69.3
Two-year-old Immunization Rate	27	*	21	*	25	*	*
Adequate Prenatal Care	*	*	12.5	14.7	17.2	31.3	16.4
Infant Mortality Rate	10.2	7.7	7.2	7.4	10	*	9.3
Lung Cancer Mortality	57.8	67	49.2	38.8	*	48.1	42.5
Breast Cancer Mortality	23.9	28.4	24.9	18.9	23.6	22.7	20.7
Heart Disease Mortality	169.8	147.7	158.1	123.1	130.8	174.1	132.2
Stroke Mortality	*	26.7	33.1	19.5	33.2	39.9	26.2
Low Birthweight Rate	6.8	8	8.6	9.2	7.5	8.8	7.8
Physical Health	17.9	21.1	13.8	19	10	16.9	15.2
Mental Health	40.5	31.4	29.5	37	16.8	26.5	37.4
New AIDS Cases	*	14.6	41.1	50.6	12.5	18.3	47.2

*Data are not available.

Table 5: Indexed Indicator Scores

Indicator	Atlanta	Charlotte	Cincinnati	Columbus	Dallas	Durham	Greenville
Unemployment	105	102	116	86	111	64	119
Formal Education	94	80	103	81	105	88	120
Income (% poor)	152	86	96	87	124	87	73
Crime against Persons	179	134	65	54	82	88	81
Crime against Property	148	115	96	68	96	123	70
Suicide	115	91	80	69	107	99	138
Air Quality	98	128	106	87	117	105	10**
High Blood Pressure	*	67	95	111	110	76	91
High Cholesterol	*	80	89	84	111	105	101
Smoking	*	95	112	121	89	66**	96
Seat Belt Use	*	41	149	133	85	38	92
Binge Drinking	*	55	54	113	176	34	50
Health Insurance	*	95	115	129	110	92	94
Cervical Cancer Screening	*	110	117	96	105	66	87
Breast Cancer Screening	*	108	88	97	123	103	88
Colon Cancer Screening	*	97	117	110	100	99	92
Two-year-old Immunization Rate	*	*	*	76	100	*	*
Adequate Prenatal Care	*	*	*	*	*	*	33
Infant Mortality Rate	130	102	131	106	78	*	*
Lung Cancer Mortality	106	102	94	106	87	103	81
Breast Cancer Mortality	117	118	112	95	94	94	91
Heart Disease Mortality	124	101	114	112	102	86	100
Stroke Mortality	*	108	*	*	*	108	99
Low Birthweight Rate	120	103	114	93	91	*	93
Physical Health	*	105	91	102	83	98	75
Mental Health	*	51	79	107	152	53	87
New AIDS Cases	*	69	*	*	*	*	*

Table 5 Continued: Indexed Indicator Scores

Indicator	Indianapolis	Louisville	Nashville	Orlando	Raleigh	Spartanburg	Tampa
Unemployment	89	122	91	105	64	119	108
Formal Education	101	110	103	91	64	156	106
Income (% poor)	101	111	119	96	56	100	113
Crime against Persons	82	76	156	111	43	125	124
Crime against Property	95	68	136	111	70	92	114
Suicide	119	90	99	105	78	123	88
Air Quality	98	90	113	69	133	120	126
High Blood Pressure	121	94	131	99	94	115	99
High Cholesterol	112	117	119	103	78	106	96
Smoking	118	103	108	89	80	115	108
Seat Belt Use	175	117	132	97	35	107	100
Binge Drinking	154	93	125	137	63	101	146
Health Insurance	101	81	80	119	92	77	113
Cervical Cancer Screening	115	139	108	87	103	88	79
Breast Cancer Screening	101	103	96	89	108	91	107
Colon Cancer Screening	93	104	97	86	94	113	99
Two-year-old Immunization Rate	108	*	84	*	132	*	*
Adequate Prenatal Care	*	*	77	91	106	193	101
Infant Mortality Rate	109	82	77	79	107	*	99
Lung Cancer Mortality	118	137	101	79	*	98	87
Breast Cancer Mortality	100	118	104	79	98	95	86
Heart Disease Mortality	108	94	101	79	84	111	84
Stroke Mortality	*	88	109	64	109	131	86
Low Birthweight Rate	82	97	104	111	91	107	94
Physical Health	117	138	91	125	66	111	100
Mental Health	143	111	104	130	59	93	132
New AIDS Cases	*	50	141	173	43	63	162

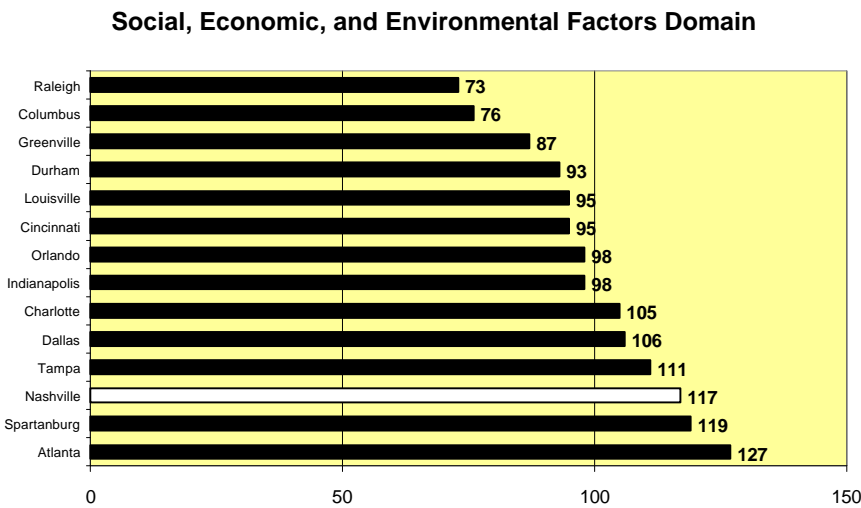
*Data are not available.

Charts Depicting the Indexed Scores

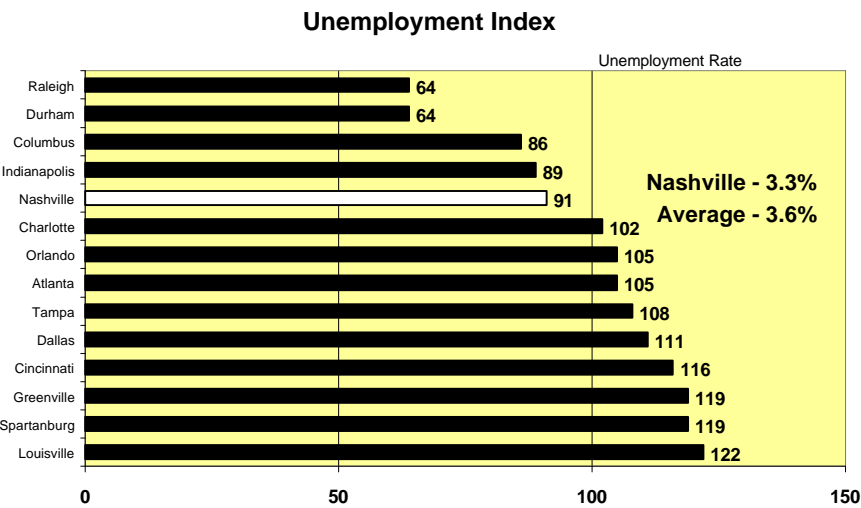
The charts that follow present the indexed scores for each city on the four domains and for each indicator in the domains. The average value of all cities for which data were available and Nashville's value are also presented for each indicator.

Social, Economic, and Environmental Factors Domain

Nashville's score on this domain was worse than the average and twelfth best among the fourteen cities.

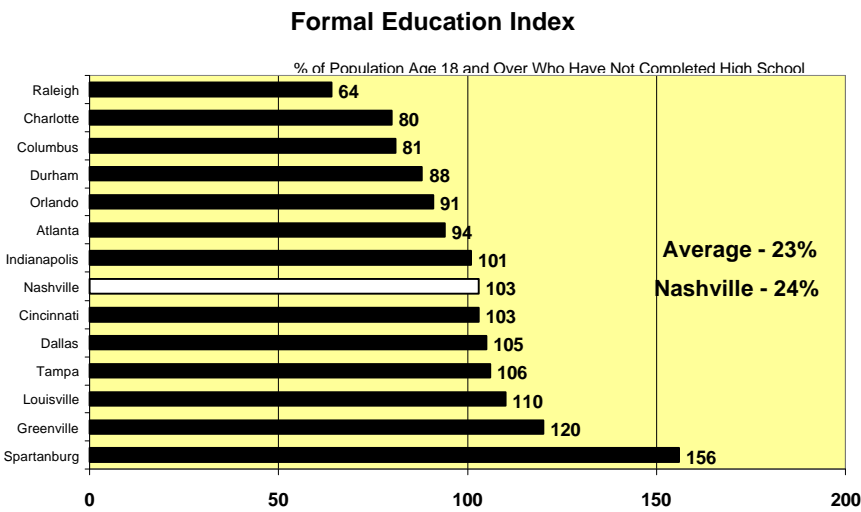


Nashville's unemployment rate was better than the average for the fourteen cities and was fifth best of all.

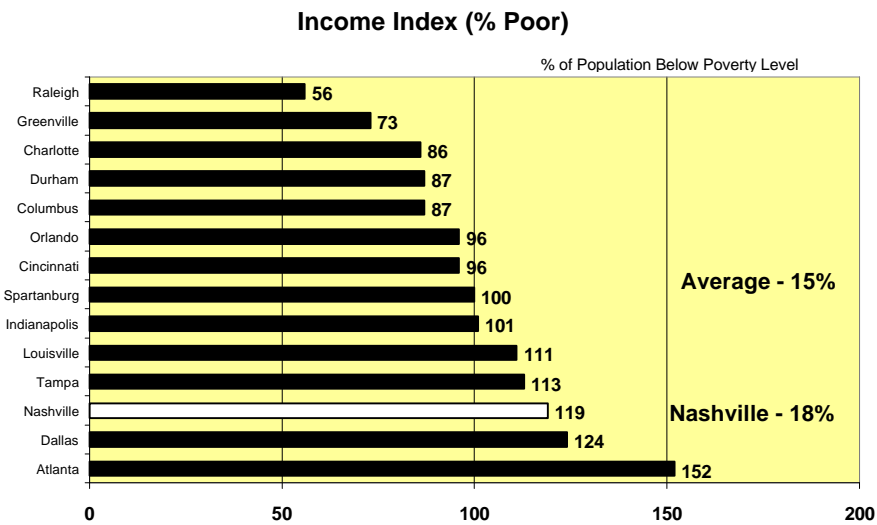


Social, Economic, and Environmental Factors Domain

Nashville's high school completion rate was slightly worse than the average and eighth best among all cities.

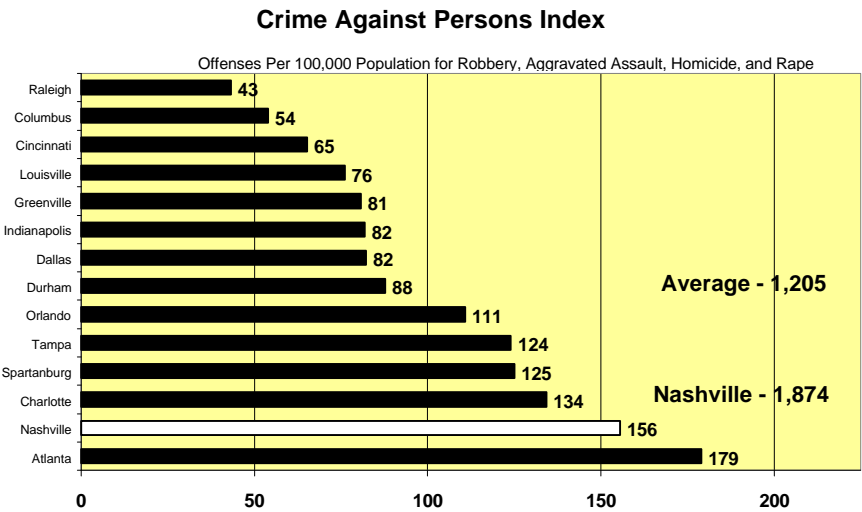


Nashville's estimated poverty rate in 1993 was higher than the average for all cities and third highest of all.

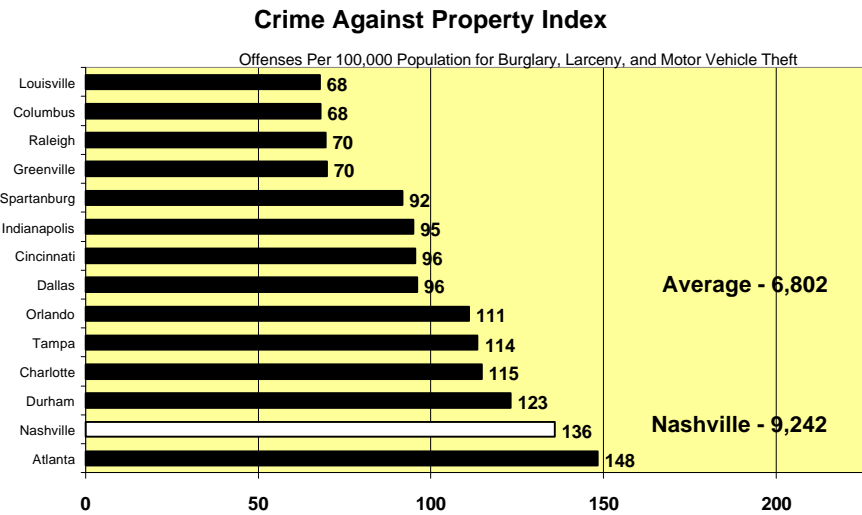


Social, Economic, and Environmental Factors Domain

Nashville's rate of violent crime was much higher than the average and was thirteenth among the fourteen cities.

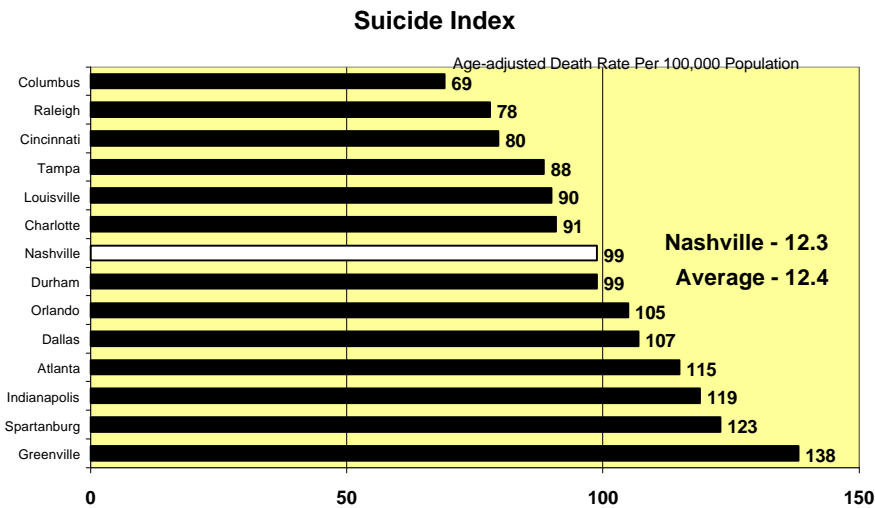


Nashville's property crime rate was much higher than the average and thirteenth among the fourteen cities.

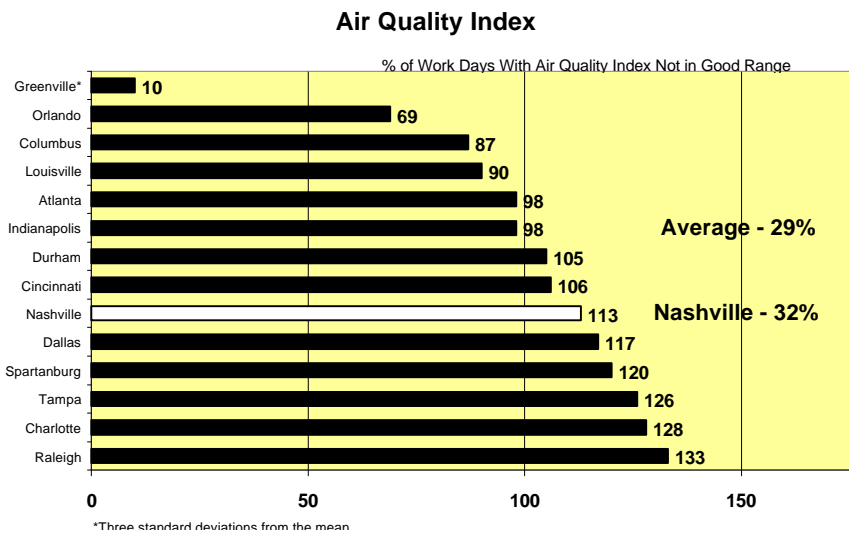


Social, Economic, and Environmental Factors Domain

Nashville's suicide rate was lower than the average and was seventh of the fourteen cities.

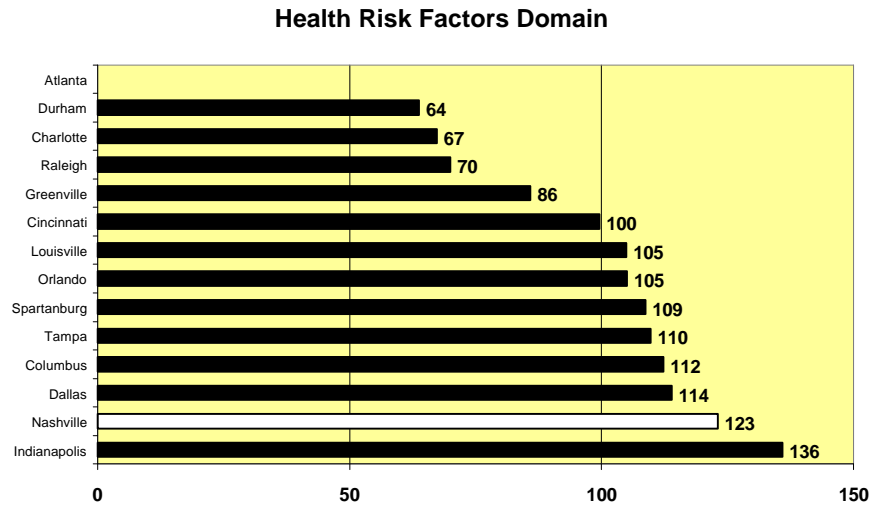


Nashville's air quality rate was worse than the average and ninth of the fourteen cities.

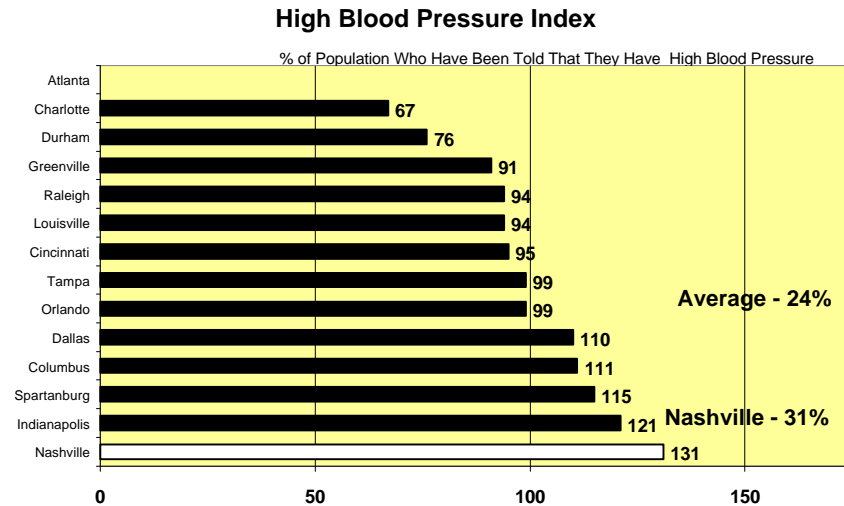


Health Risk Factors Domain

Nashville's score on the health risk factors index was worse than the average and next to last among the thirteen cities for which there were scores.



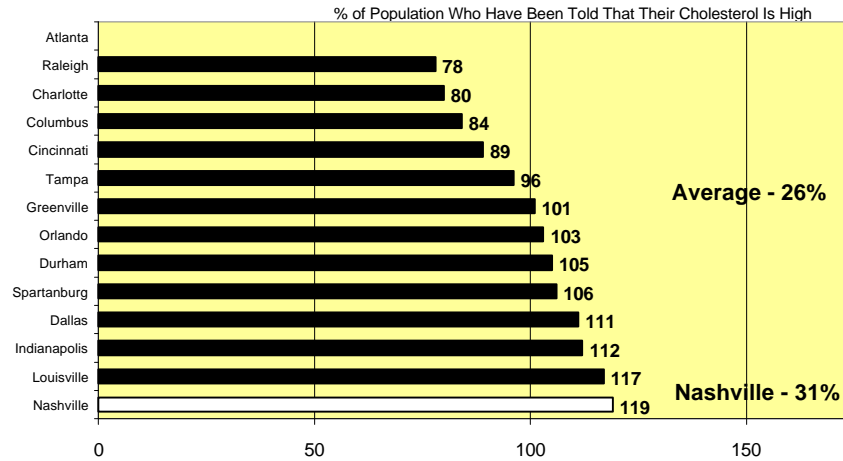
Nashville's high blood pressure rate was the highest of all thirteen cities for which there was a score.



Health Risk Factors Domain

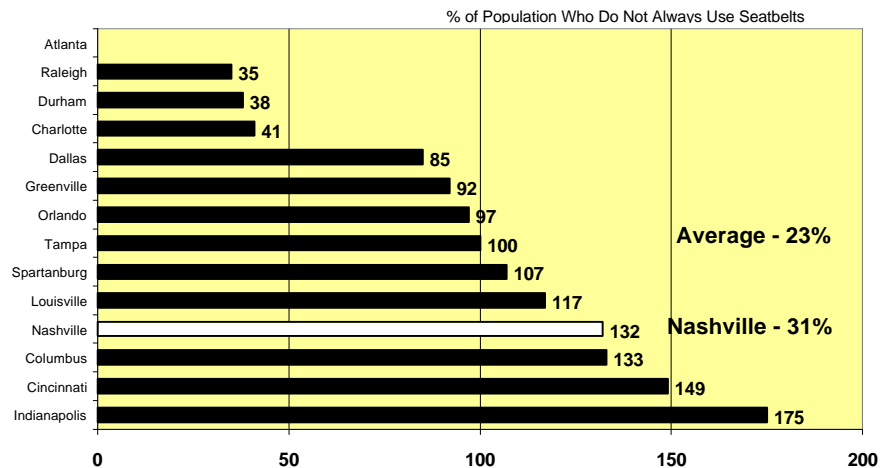
High Cholesterol Index

Nashville's high cholesterol rate was the highest of the thirteen cities for which there was a score.



Seat Belt Use Index

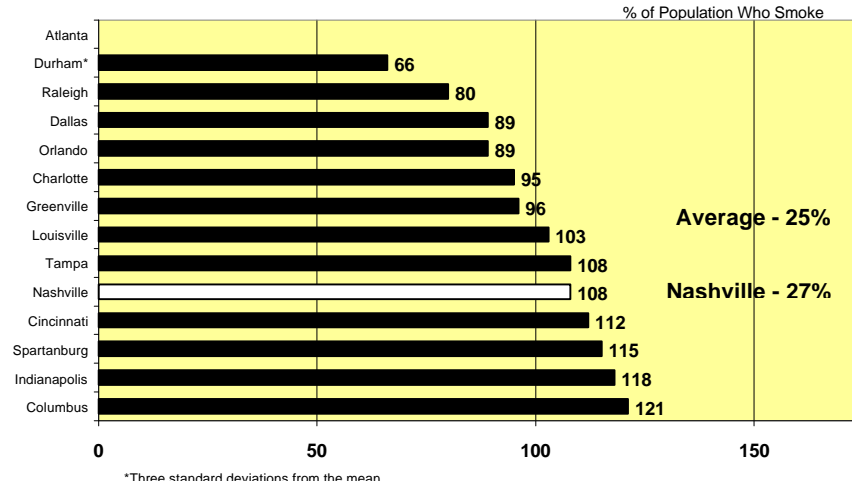
Nashville's score on seat belt use was much higher than the average and tenth of the thirteen cities for which there was a rating.



Health Risk Factors Domain

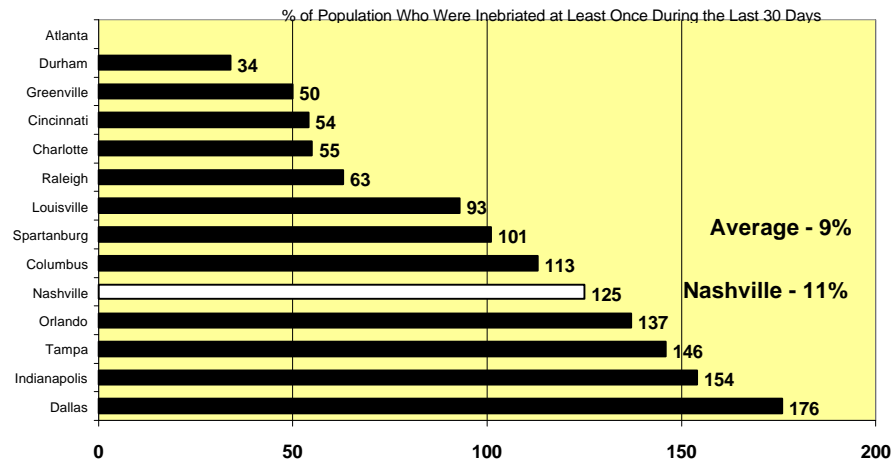
Smoking Index

Nashville's score on percent who smoke was higher than the average and ninth among the thirteen cities for which there was a score.



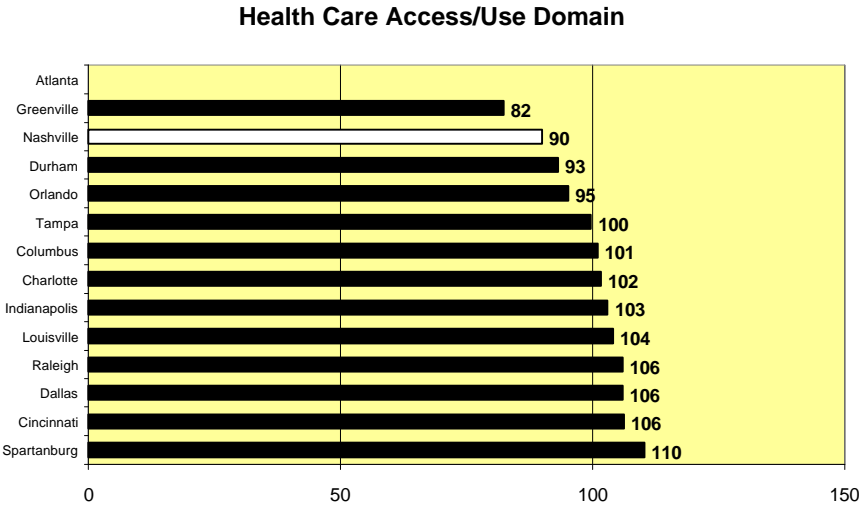
Binge Drinking Index

Nashville's score on the binge drinking index was higher than the average and ninth of the thirteen cities for which there was a rating.

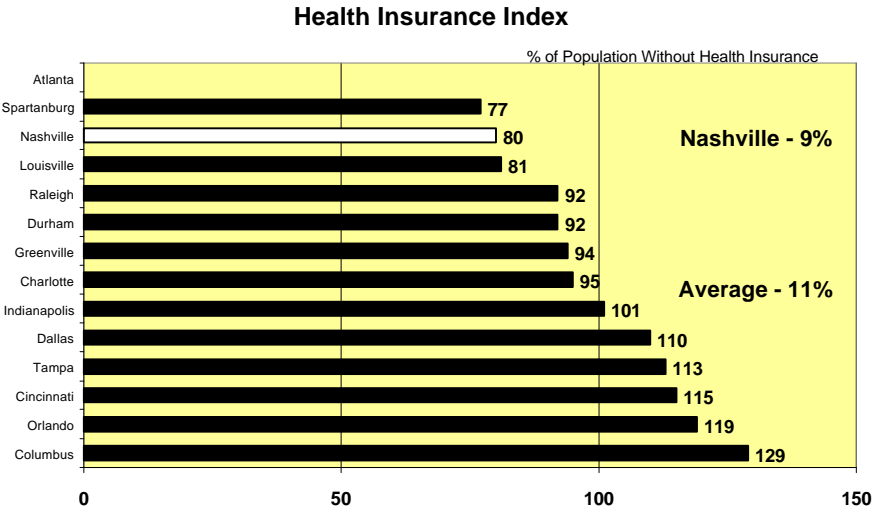


Health Care Access/Use Domain

Nashville had the second best score on the health care access/use domain.

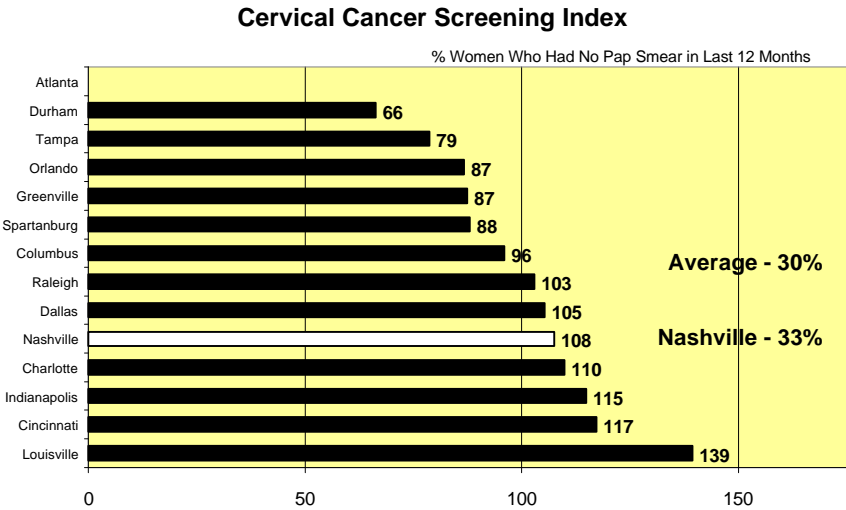


Nashville's health insurance score was much better than the average and was second in the list of thirteen cities for which there was a score.

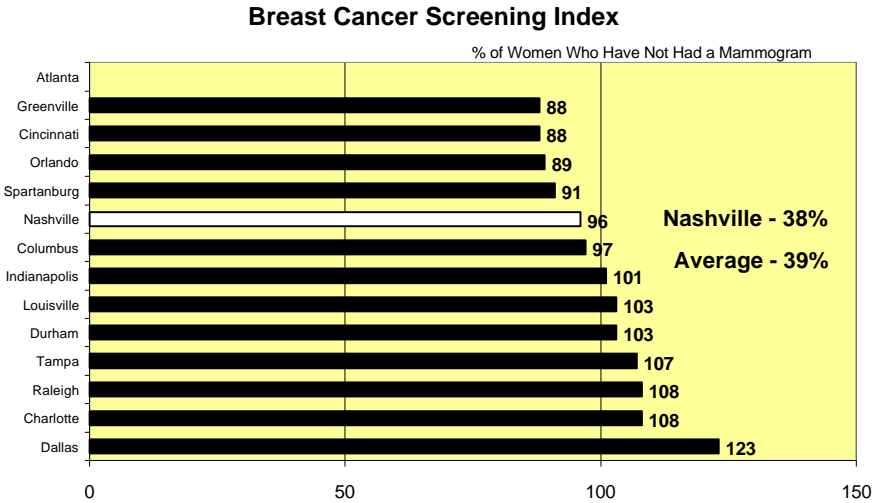


Health Care Access/Use Domain

Nashville's score on cervical cancer screening was worse than the average and ninth of the thirteen cities with a score on this factor.

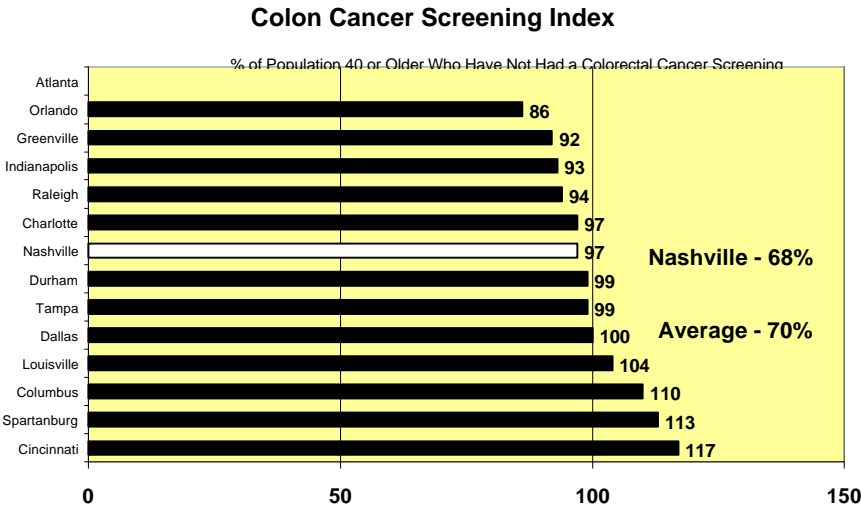


Nashville had the fifth best score on the breast cancer screening index. The indexed score was better than the average for all cities.

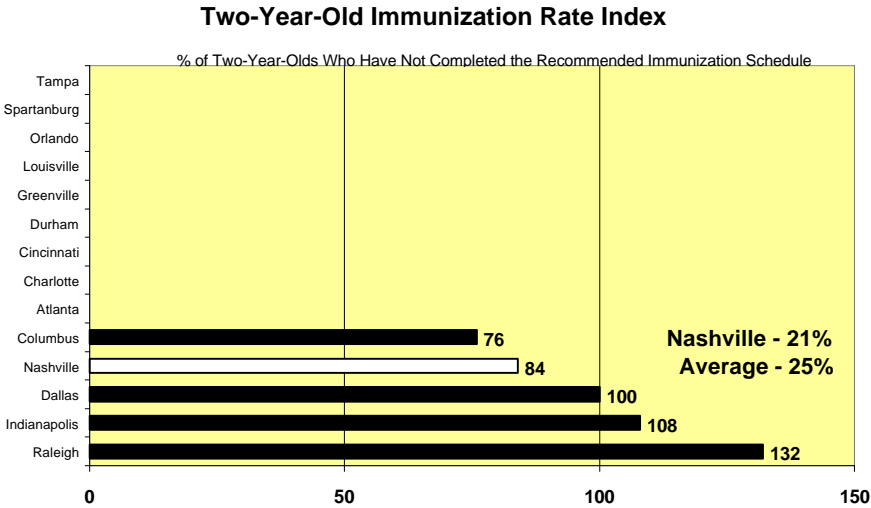


Health Care Access/Use Domain

Nashville's score on colon cancer screening was better than the average and sixth best overall.

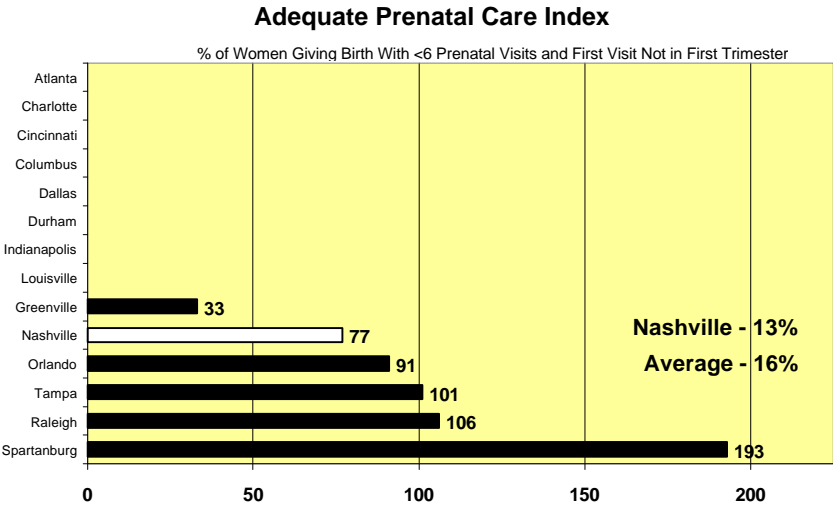


Nashville had the second best score on the immunization of two-year-olds. Its score was better than the average for the five cities for which a rate was available.



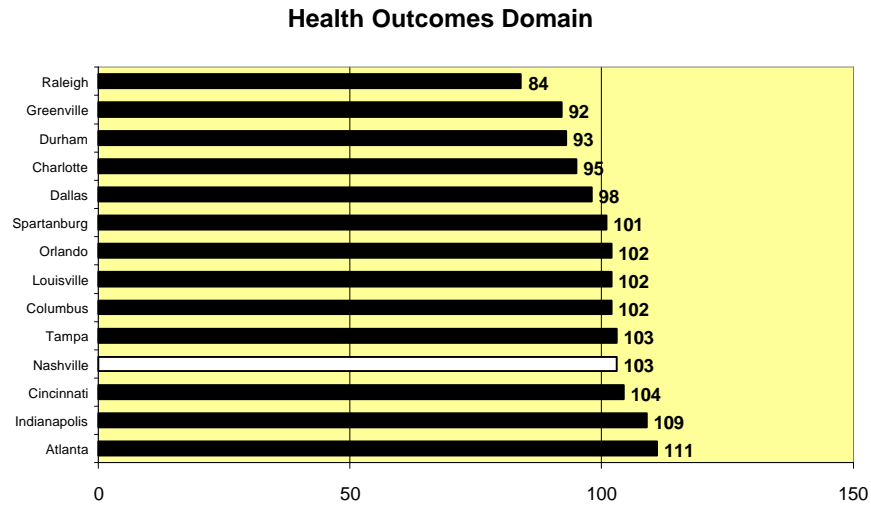
Health Care Access/Use Domain

Nashville had the second best score on adequate prenatal care.

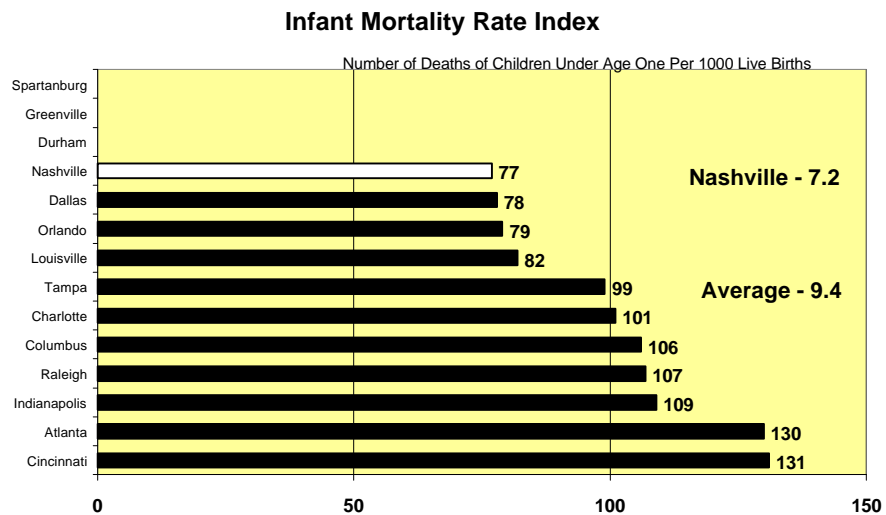


Health Outcomes Domain

Nashville's score on the health outcomes domain was higher than the average for all cities and was eleventh in the list of fourteen cities.



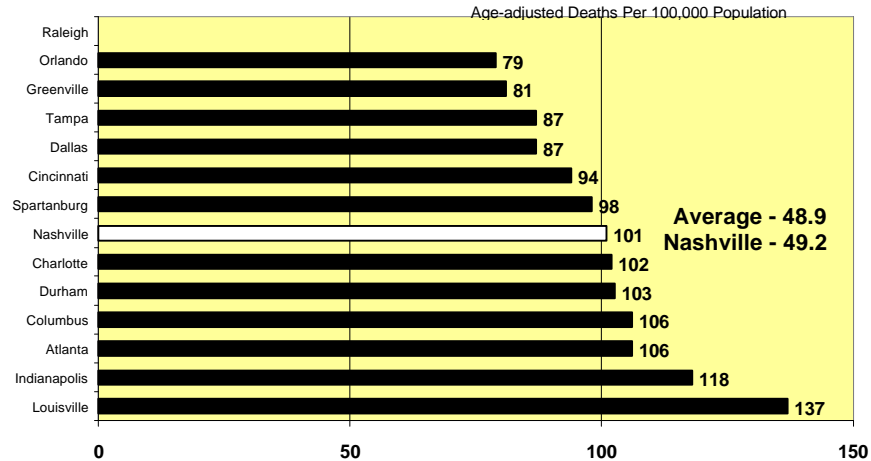
Nashville had the lowest infant mortality rate of the eleven cities for which the rate was available.



Health Outcomes Domain

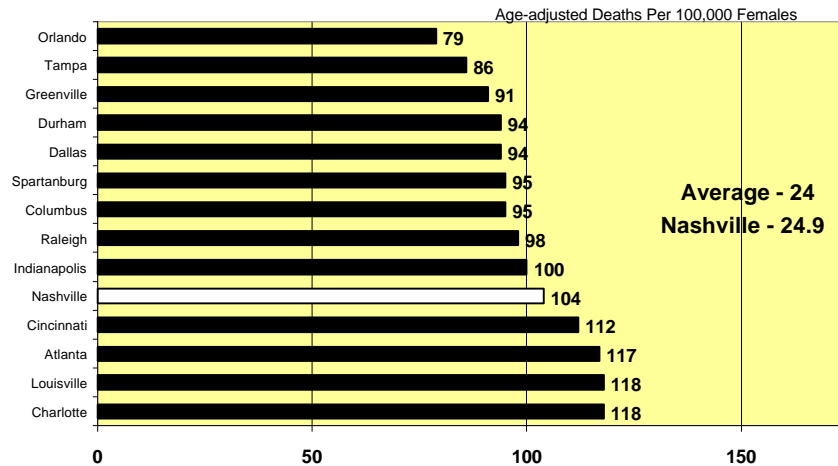
Lung Cancer Mortality Index

Nashville's lung cancer mortality score was slightly worse than the average and was seventh among the thirteen cities with a score.



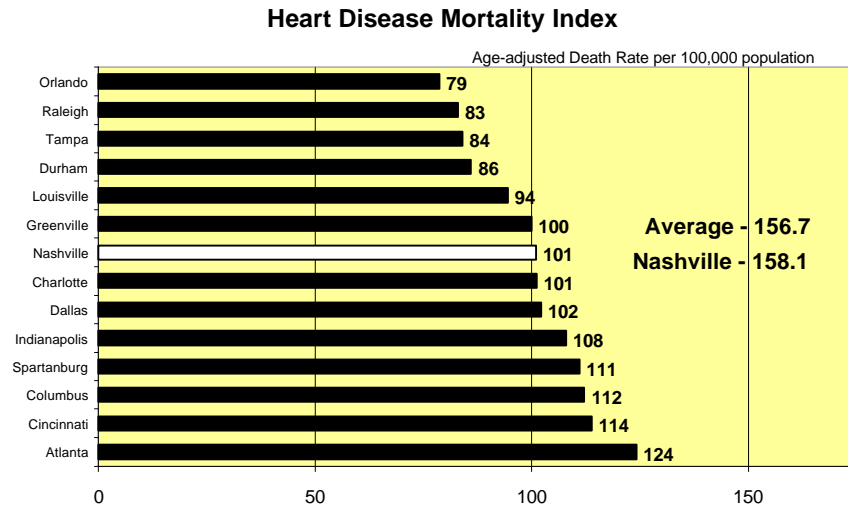
Breast Cancer Mortality Index

Nashville's score on breast cancer mortality was slightly higher than the average and was tenth among the fourteen cities.

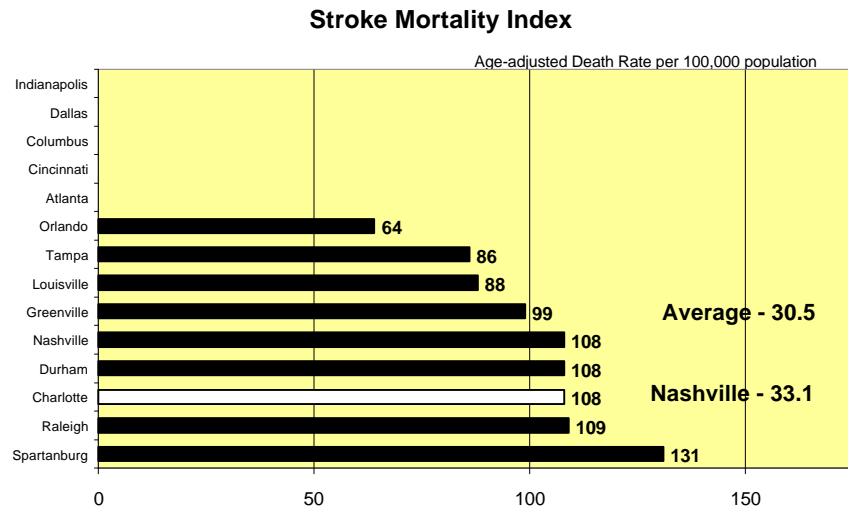


Health Outcomes Domain

Nashville's heart disease mortality rate was just slightly higher than the mean and was seventh in the list of fourteen cities.



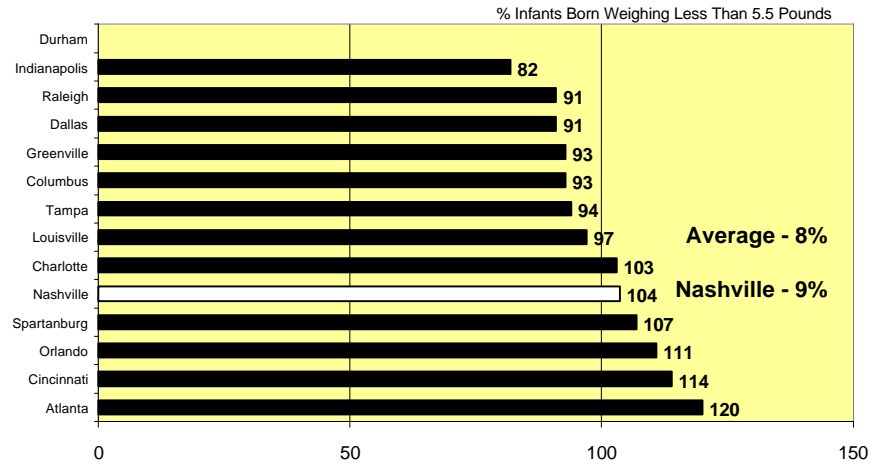
Nashville's stroke mortality rate was higher than the average and seventh among the nine cities for which the rate was available.



Health Outcomes Domain

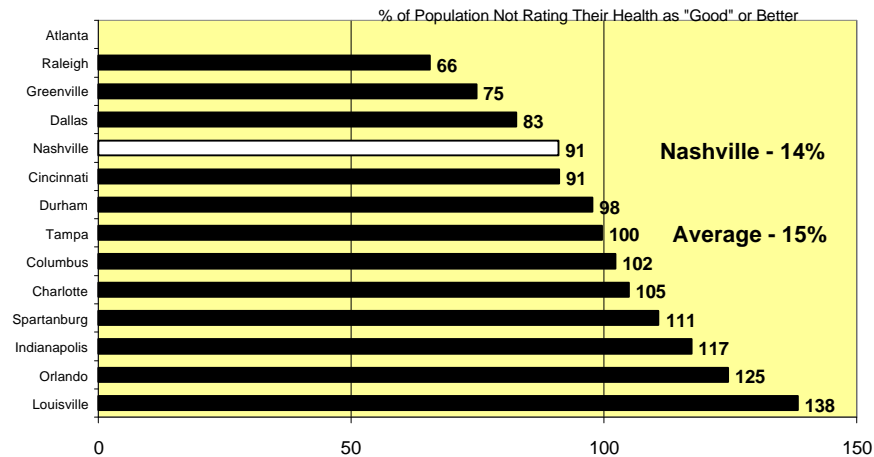
Low Birthweight Index

Nashville's score on low birthweight infants was slightly higher than the average and was ninth of the thirteen cities for which there was a score



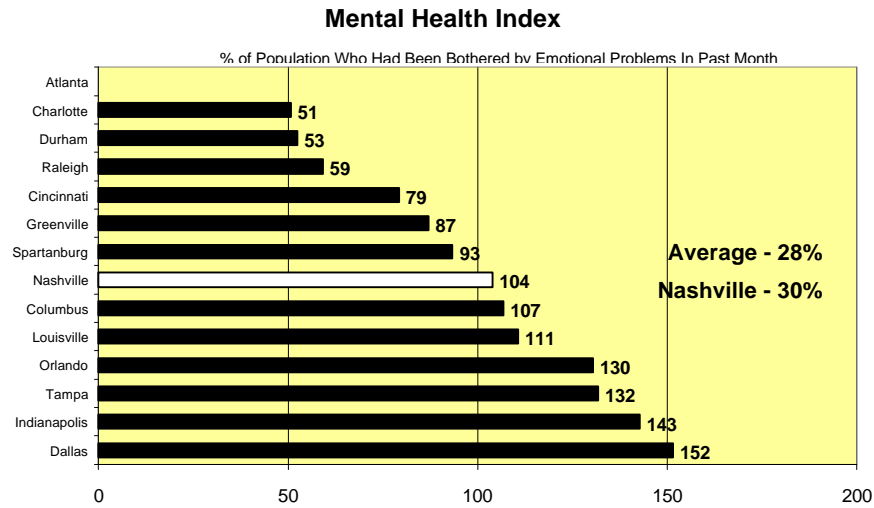
Physical Health Index

Nashville scored better than the average on the physical health index and was fourth among the thirteen cities for which a score was available.

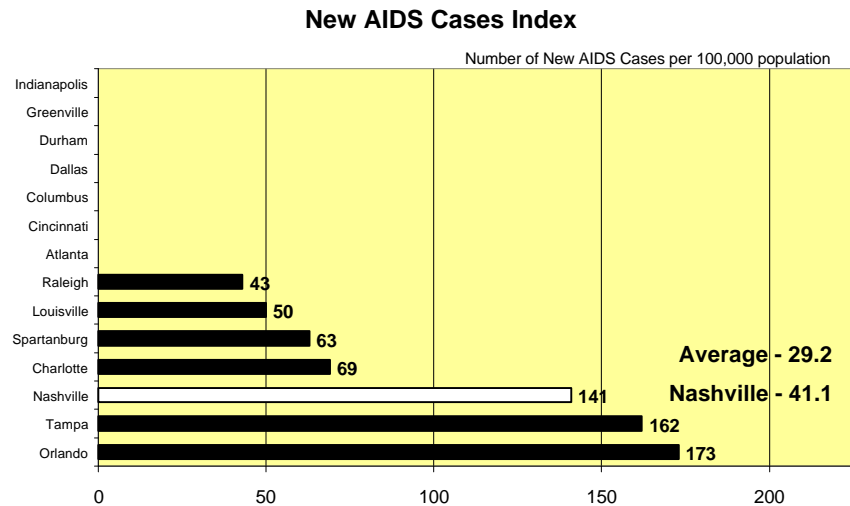


Health Outcomes Domain

Nashville's score on the mental health index was just above the average and was seventh of the thirteen cities with a score on this indicator.



Nashville's new AIDS case rate was much higher than the average and was fifth of the seven cities for which a score was available.



Data Sources

Unemployment rate

All fourteen cities: "Employment and Earnings," Bureau of Labor Statistics, United States Department of Labor, May 1997.

Formal education

All fourteen cities: 1990 Census of the United States, Bureau of the Census, United States Department of Commerce.

Income (% poor)

All fourteen cities: "County Income and Poverty Estimates, 1993," Bureau of the Census, United States Department of Commerce, 1997.

Crimes against persons and crimes against property

All cities except Nashville: For number of crimes by type -- "Uniform Crime Reports," National Archive of Criminal Justice Data, Federal Bureau of Investigation, United States Department of Justice, 1996. Report accessed via the Internet at <http://www.lib.virginia.edu/socsci/crime/>. Rates calculated using population estimates of counties compiled by the U.S. Census Bureau and accessed via the Internet at <http://www.census.gov/population/www/estimates/county.html>.

Nashville: For number of crimes by type – Telephone communication with Metropolitan Police Department of Nashville and Davidson County, October, 1997. Rates calculated using population estimate for Davidson County compiled by the Department of Sociology, University of Tennessee.

Suicide

Atlanta, Charlotte, Cincinnati, Columbus, Dallas, and Indianapolis: "Big Cities Health Inventory 1997; The Health of Urban U.S.A.," Chicago Department of Public Health, 1997.

Durham: fax communication, Health Education Division, Durham County Health Department, November 1997.

Louisville: "Jefferson County Health Status Report Card, 1996," Jefferson County Health Department, 1996.

Nashville: an analysis of the 1996 death records by the Division of Assessment and Surveillance, Metropolitan Health Department of Nashville and Davidson County.

Orlando and Tampa: fax communication from Barry Mittan, Office of the Secretary, Florida Department of Health, September 12, 1997.

Raleigh: "A Statistical Analysis of Wake County," Wake County Department of Health, 1996.

Air Quality

Atlanta: Telephone call with Ken Powell, Fulton County Health Department, September 1997.

Charlotte, Durham, and Raleigh: Telephone call with Wayne Cornelius, North Carolina Department of Health, September 1997.

Cincinnati and Columbus: Telephone call with Gary Engler, Ohio Environmental Pollution Administration, September 1997.

Dallas: Telephone call with R. Beck, Dallas County Health Department, September 1997.

Greenville, Indianapolis, Nashville, Orlando, Spartanburg and Tampa: Fred Huggins, Air Quality Division, Metropolitan Health Department of Nashville and Davidson County, who acquired the information via the Aerometric Information Retrieval System.

Louisville: Telephone call with Art James, Jefferson County Health Department, September 1997.

High Blood Pressure

For all cities other than Nashville, the Division of Assessment and Surveillance, Metropolitan Health Department of Nashville and Davidson County analyzed data files of the Behavior Risk Factor Surveillance System for the states where the thirteen cities are located. The Division of Adult and Community Health, National Center for Chronic Disease Prevention and Health Promotion, United States Department of Health and Human Services supplied the data files. The state health departments of the states where the thirteen cities are located collected the data in 1995.

Nashville: "The 1996 Nashville Health Risk Behavior Survey," Partners for a Healthy Nashville, 1996.

High Blood Cholesterol

Same as High Blood Pressure.

Smoking

For all cities including Nashville, the Division of Assessment and Surveillance, Metropolitan Health Department of Nashville and Davidson County analyzed data files of the Behavior Risk Factor Surveillance System for the states where the thirteen cities are located. The Division of Adult and Community Health, National Center for Chronic Disease Prevention and Health Promotion, United States Department of Health and Human Services supplied the data files. The state health departments of the states where the thirteen cities are located collected the data in 1995.

Seat Belt Use

Same as High Blood Pressure.

Binge Drinking

Same as High Blood Pressure.

Health Insurance

Same as High Blood Pressure.

Cervical Cancer Screening

Same as Smoking.

Breast Cancer Screening

Same as High Blood Pressure.

Colon Cancer Screening

Same as High Blood Pressure.

Two-Year-Old Immunization Rate

For all cities except Raleigh: “United States National Immunization Survey, 1996,” MMWR, July 25, 1997, Volume 46, Number 29.

Raleigh: “A Statistical Analysis of Wake County,” Wake County Department of Health, 1996.

Adequate Prenatal Care

Greenville: fax communication from Patty Jones, Office of Public Health Statistics and Information Systems, Division of Biostatistics, South Carolina Department of Health, September 12, 1997.

Nashville: an analysis of 1996 birth records by the Division of Assessment and Surveillance, Metropolitan Health Department of Nashville and Davidson County.

Orlando and Tampa: fax communication from Barry Mittan, Office of the Secretary, Florida Department of Health, September 12, 1997.

Raleigh: “A Statistical Analysis of Wake County,” Wake County Department of Health, 1996.

Spartanburg: “Spartanburg County Data Book, 1993”, Spartanburg County Foundation, 1993.

Infant Mortality Rate

Same as Suicide except for Nashville, the Division of Assessment and Surveillance analyzed death and birth records to determine the rate.

Lung Cancer Mortality

Same as Suicide with the addition of –

Greenville: fax communication from Patty Jones, Office of Public Health Statistics and Information Systems, Division of Biostatistics, South Carolina Department of Health, September 12, 1997.

Breast Cancer Mortality

Same as Lung Cancer Mortality.

Heart Disease Mortality

Same as Suicide.

Stroke Mortality

Charlotte: “Community Diagnosis of Mecklenburg County, North Carolina, 1996,” Mecklenburg County Health Department, 1996.

Durham: fax communication, Health Education Division, Durham County Health Department, November, 1997.

Greenville: fax communication from Patty Jones, Office of Public Health Statistics and Information Systems, Division of Biostatistics, South Carolina Department of Health, September 12, 1997.

Louisville: "Jefferson County Health Status Report Card, 1996," Jefferson County Health Department, 1996.

Nashville: an analysis of the 1996 death records by the Division of Assessment and Surveillance, Metropolitan Health Department of Nashville and Davidson County.

Orlando and Tampa: fax communication from Barry Mittan, Office of the Secretary, Florida Department of Health, September 12, 1997.

Raleigh: "A Statistical Analysis of Wake County," Wake County Department of Health, 1996.

Low Birthweight Rate

Same as Suicide with the addition of -

Greenville: fax communication from Patty Jones, Office of Public Health Statistics and Information Systems, Division of Biostatistics, South Carolina Department of Health, September 12, 1997

Spartanburg: "Spartanburg County Data Book, 1993", Spartanburg County Foundation, 1993.

Physical Health

Same as High Blood Pressure.

Mental Health

Same as High Blood Pressure.

New AIDS Cases

Charlotte: "Community Diagnosis of Mecklenburg County, North Carolina, 1996," Mecklenburg County Health Department, 1996.

Louisville: "Jefferson County Health Status Report Card, 1996," Jefferson County Health Department, 1996.

Nashville: an analysis of the 1996 reported AIDS case records by the Division of Assessment and Surveillance, Metropolitan Health Department of Nashville and Davidson County.

Orlando and Tampa: fax communication from Barry Mittan, Office of the Secretary, Florida Department of Health, September 12, 1997.

Raleigh: "A Statistical Analysis of Wake County," Wake County Department of Health, 1996.

Spartanburg: "Spartanburg County Data Book, 1993", Spartanburg County Foundation, 1993.